
Sequence Listing could not be accepted.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: [year=2010; month=9; day=27; hr=11; min=37; sec=0; ms=452;]

Reviewer Comments:

(errored portion of Sequence 4 below)

<400> 4

atg agc ctt ttg gat gct cat atc cca cag ttg gtg gcc tcc cag tcg 48

Met Ser Leu Leu Asp Ala His Ile Pro Gln Leu Val Ala Ser Gln Ser 1 5 10 15

gcg ttt gcc gcc aag gcg ggg ctg atg cgg cac acg atc ggt cag gcc 96

Ala Phe Ala Lys Ala Gly Leu Met Arg His Thr Ile Gly Gln Ala 20 25 30

gag cag gcg gcg atg tcg gct cag gcg ttt cac cag ggg gag tcg tcg 144

Glu Gln Ala Ala Met Ser Ala Gln Ala Phe His Gln Gly Glu Ser Ser 35 40 45

gcg gcg ttt cag gcc gcc cat gcc cgg ttt gtg gcg gcg gcc gcc aaa 192

Ala Ala Phe Gln Ala Ala His Ala Arg Phe Val Ala Ala Ala Ala Lys 50 55 60

gtc aac acc ttg ttg gat gtc gcg cag gcg aat ctg ggt gag gcc gcc 240

Val Asn Thr Leu Leu Asp Val Ala Gln Ala Asn Leu Gly Glu Ala Ala 65 70 75 80

ggt acc tat gtg gcc gcc gat gct gcg gcc gcg tcg acc tat acc ggg 288

Gly Thr Tyr Val Ala Ala Asp Ala Ala Ala Ala Ser Thr Tyr Thr Gly
85 90 95

ttc tga

294

Phe *

Please remove the asterisk "*" under the above stop codon "tga": since stop codons do not code for an amino acid, nothing should be under them. Also, asterisks are non-ASCII characters which cannot be processed. Same error in subsequent coding Sequences 8, 12, 14, 16, 20, 22, 24, 26, 28, 30.

<210> 47

<211> 30

<212> DNA

<213> Artifical sequence

<400> 47

ctcccatggt taaaacccgg tgtagctgga

30

Two errors above: 1) in the <213> response, please correct the spelling of "Artificial"; 2) please furnish the mandatory explanation of "<213> Artificial Sequence" in a <220>-<223> section: please clearly indicate the source of the genetic material.

Validated By CRFValidator v 1.0.3

Application No: 10723908 Version No: 3.0

Input Set:

Output Set:

Started: 2010-09-21 21:45:41.689

Finished: 2010-09-21 21:45:48.274

Elapsed: 0 hr(s) 0 min(s) 6 sec(s) 585 ms

Total Warnings: 59

Total Errors: 0

No. of SeqIDs Defined: 59

Actual SeqID Count: 59

Error code		Error Description								
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W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(2)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(3)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(4)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(5)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(6)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(7)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(8)
M	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(9)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(10)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(11)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(12)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(13)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(14)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(15)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(16)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(17)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(18)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(19)
W	402	Undefined	organism	found	in	<213>	in	SEQ	ID	(20)

Input Set:

Output Set:

Started: 2010-09-21 21:45:41.689 **Finished:** 2010-09-21 21:45:48.274

Elapsed: 0 hr(s) 0 min(s) 6 sec(s) 585 ms

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Actual SeqID Count: 59

Error code **Error Description** This error has occured more than 20 times, will not be displayed Artificial or Unknown found in <213> in SEQ ID (32) 213 213 Artificial or Unknown found in <213> in SEQ ID (33) W 213 Artificial or Unknown found in <213> in SEQ ID (34) W Artificial or Unknown found in <213> in SEQ ID (35) W 213 213 Artificial or Unknown found in <213> in SEQ ID (36) W 213 Artificial or Unknown found in <213> W in SEQ ID (37) W 213 Artificial or Unknown found in <213> in SEQ ID (38) 213 W Artificial or Unknown found in <213> in SEQ ID (39) 213 Artificial or Unknown found in <213> W in SEQ ID (40) Artificial or Unknown found in <213> in SEQ ID (41) W 213 W 213 Artificial or Unknown found in <213> in SEQ ID (42) W 213 Artificial or Unknown found in <213> in SEQ ID (43) Artificial or Unknown found in <213> in SEQ ID (44) W 213 Artificial or Unknown found in <213> in SEQ ID (45) W 213 213 Artificial or Unknown found in <213> W in SEQ ID (46) Artificial or Unknown found in <213> in SEQ ID (48) W 213 Artificial or Unknown found in <213> in SEQ ID (49) W 213 213 Artificial or Unknown found in <213> W in SEQ ID (50) W 213 Artificial or Unknown found in <213> in SEQ ID (51) W 213 Artificial or Unknown found in <213> in SEQ ID (52) This error has occured more than 20 times, will not be displayed

SEQUENCE LISTING <110> Statens Serum Institut <120> Tuberculosis vaccine and diagnostics based on the Mycobacterium tuberculosis esat-6 gene family <130> 23388us1 <140> 10723908 <141> 2010-09-21 <160> 59 <170> FastSEQ for Windows Version 3.0 <210> 1 <211> 100 <212> PRT <213> M.Tuberculosis <400> 1 Met Ala Glu Met Lys Thr Asp Ala Ala Thr Leu Ala Gln Glu Ala Gly 10 Asn Phe Glu Arg Ile Ser Gly Asp Leu Lys Thr Gln Ile Asp Gln Val 25 Glu Ser Thr Ala Gly Ser Leu Gln Gly Gln Trp Arg Gly Ala Ala Gly 40 Thr Ala Ala Gln Ala Ala Val Val Arg Phe Gln Glu Ala Ala Asn Lys Gln Lys Gln Glu Leu Asp Glu Ile Ser Thr Asn Ile Arg Gln Ala Gly 70 75 Val Gln Tyr Ser Arg Ala Asp Glu Glu Gln Gln Ala Leu Ser Ser

Gln Met Gly Phe

<210> 2

<211> 95 <212> PRT

<213> M.Tuberculosis

100

Met Thr Glu Gln Gln Trp Asn Phe Ala Gly Ile Glu Ala Ala Ala Ser

Ala Ile Gln Gly Asn Val Thr Ser Ile His Ser Leu Leu Asp Glu Gly 25

Lys Gln Ser Leu Thr Lys Leu Ala Ala Ala Trp Gly Gly Ser Gly Ser 40

Glu Ala Tyr Gln Gly Val Gln Gln Lys Trp Asp Ala Thr Ala Thr Glu

Leu Asn Asn Ala Leu Gln Asn Leu Ala Arg Thr Ile Ser Glu Ala Gly 70 75

Gln Ala Met Ala Ser Thr Glu Gly Asn Val Thr Gly Met Phe Ala

```
<211> 96
<212> PRT
<213> M.Tuberculosis
<400> 3
Met Ser Gln Ile Met Tyr Asn Tyr Pro Ala Met Leu Gly His Ala Gly
                5
                                    10
1
Asp Met Ala Gly Tyr Ala Gly Thr Leu Gln Ser Leu Gly Ala Glu Ile
                                25
Ala Val Glu Gln Ala Ala Leu Gln Ser Ala Trp Gln Gly Asp Thr Gly
                            40
Ile Thr Tyr Gln Ala Trp Gln Ala Gln Trp Asn Gln Ala Met Glu Asp
                        55
Leu Val Arq Ala Tyr His Ala Met Ser Ser Thr His Glu Ala Asn Thr
                    70
                                        7.5
Met Ala Met Met Ala Arg Asp Thr Ala Glu Ala Ala Lys Trp Gly Gly
                                    90
<210> 4
<211> 294
<212> DNA
<213> M Tuberculosis
<220>
<221> CDS
<222> (1)...(294)
<400> 4
atg agc ctt ttg gat gct cat atc cca cag ttg gtg gcc tcc cag tcg
                                                                       48
Met Ser Leu Leu Asp Ala His Ile Pro Gln Leu Val Ala Ser Gln Ser
                                     10
                                                                       96
gcg ttt gcc gcc aag gcg ggg ctg atg cgg cac acg atc ggt cag gcc
Ala Phe Ala Ala Lys Ala Gly Leu Met Arg His Thr Ile Gly Gln Ala
             20
gag cag gcg gcg atg tcg gct cag gcg ttt cac cag ggg gag tcg tcg
                                                                      144
Glu Gln Ala Ala Met Ser Ala Gln Ala Phe His Gln Gly Glu Ser Ser
                             40
geg geg ttt cag gee gee cat gee egg ttt gtg geg geg gee gee aaa
                                                                      192
Ala Ala Phe Gln Ala Ala His Ala Arg Phe Val Ala Ala Ala Ala Lys
     50
                         55
                                             60
gtc aac acc ttg ttg gat gtc gcg cag gcg aat ctg ggt gag gcc gcc
                                                                      240
Val Asn Thr Leu Leu Asp Val Ala Gln Ala Asn Leu Gly Glu Ala Ala
65
                    70
                                         75
ggt acc tat gtg gcc gcc gat gct gcg gcc gcg tcg acc tat acc ggg
                                                                      288
Gly Thr Tyr Val Ala Ala Asp Ala Ala Ala Ser Thr Tyr Thr Gly
                 85
                                     90
                                                                      294
ttc tga
```

tte tga

Phe *

<210> 3

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<212> PRT
<213> M Tuberculosis
<400> 5
Met Ser Leu Leu Asp Ala His Ile Pro Gln Leu Val Ala Ser Gln Ser
                                    10
Ala Phe Ala Ala Lys Ala Gly Leu Met Arg His Thr Ile Gly Gln Ala
            20
                                25
Glu Gln Ala Ala Met Ser Ala Gln Ala Phe His Gln Gly Glu Ser Ser
                            40
Ala Ala Phe Gln Ala Ala His Ala Arg Phe Val Ala Ala Ala Lys
Val Asn Thr Leu Leu Asp Val Ala Gln Ala Asn Leu Gly Glu Ala Ala
                    70
                                       75
Gly Thr Tyr Val Ala Ala Asp Ala Ala Ala Ala Ser Thr Tyr Thr Gly
Phe
<210> 6
<211> 339
<212> DNA
<213> M Tuberculosis
<220>
<221> CDS
<222> (1)...(339)
<400> 6
ttg atc ccc ggt cgg atg gtg ctg aac tgg gaa gat ggc ctc aat gcc
                                                                      48
Leu Ile Pro Gly Arg Met Val Leu Asn Trp Glu Asp Gly Leu Asn Ala
ctt gtt gcg gaa ggg att gag gcc atc gtg ttt cgt act tta ggc gat
                                                                      96
Leu Val Ala Glu Gly Ile Glu Ala Ile Val Phe Arg Thr Leu Gly Asp
             20
                                 25
cag tgc tgg ttg tgg gag tcg ctg ctc cac gac gag gtg cgc cga ctg
                                                                     144
Gln Cys Trp Leu Trp Glu Ser Leu Leu Pro Asp Glu Val Arg Arg Leu
         35
                             40
ccc gag gaa ctg gcc cgg gtg gac gca ttg ttg gac gat ccg gcg ttc
                                                                     192
Pro Glu Glu Leu Ala Arg Val Asp Ala Leu Leu Asp Asp Pro Ala Phe
     50
                         55
ttc gcc ccg ttc gtg ccg ttc ttc gac ccg cgc agg ggc cgg ccg tcg
                                                                      240
Phe Ala Pro Phe Val Pro Phe Phe Asp Pro Arg Arg Gly Arg Pro Ser
65
acg ccg atg gag gtc tat ctg cag ttg atg ttt gtg aag ttc cgc tac
                                                                      288
Thr Pro Met Glu Val Tyr Leu Gln Leu Met Phe Val Lys Phe Arg Tyr
                 85
                                     90
```

cgg ctg ggc tat gag tcg ctg tgc cgg gag gtg gct gat tcg atc acc

336

<210> 5 <211> 97

tga 339 <210> 7 <211> 112 <212> PRT <213> M Tuberculosis <400> 7 Met Ile Pro Gly Arg Met Val Leu Asn Trp Glu Asp Gly Leu Asn Ala 1 5 10 Leu Val Ala Glu Gly Ile Glu Ala Ile Val Phe Arg Thr Leu Gly Asp 25 Gln Cys Trp Leu Trp Glu Ser Leu Leu Pro Asp Glu Val Arg Arg Leu 40 Pro Glu Glu Leu Ala Arg Val Asp Ala Leu Leu Asp Asp Pro Ala Phe 55 Phe Ala Pro Phe Val Pro Phe Phe Asp Pro Arg Arg Gly Arg Pro Ser 70 75 Thr Pro Met Glu Val Tyr Leu Gln Leu Met Phe Val Lys Phe Arg Tyr 90 Arg Leu Gly Tyr Glu Ser Leu Cys Arg Glu Val Ala Asp Ser Ile Thr 105 <210> 8 <211> 285 <212> DNA <213> M Tuberculosis <220> <221> CDS <222> (1)...(285) <400> 8 atg acc atc aac tat caa ttc ggg gac gtc gac gct cac ggc gcc atg 48 Met Thr Ile Asn Tyr Gln Phe Gly Asp Val Asp Ala His Gly Ala Met 1 5 10 15 atc cgc gct cag gcc ggg tcg ctg gag gcc gag cat cag gcc atc att Ile Arg Ala Gln Ala Gly Ser Leu Glu Ala Glu His Gln Ala Ile Ile 20 25 tet gat gtg ttg acc gcg agt gac ttt tgg ggc ggc gcc ggt tcg gcg 144 Ser Asp Val Leu Thr Ala Ser Asp Phe Trp Gly Gly Ala Gly Ser Ala 35 40 gcc tgc cag ggg ttc att acc cag ctg ggc cgt aac ttc cag gtg atc 192 Ala Cys Gln Gly Phe Ile Thr Gln Leu Gly Arg Asn Phe Gln Val Ile 50 tac gag cag gcc aac gcc cac ggg cag aag gtg cag gct gcc ggc aac 240 Tyr Glu Gln Ala Asn Ala His Gly Gln Lys Val Gln Ala Ala Gly Asn 70 75

aac atg gca caa acc gac agc gcc gtc ggc tcc agc tgg gcc taa

285

Asn Met Ala Gln Thr Asp Ser Ala Val Gly Ser Ser Trp Ala * 85

<210> 9 <211> 94 <212> PRT <213> M Tuberculosis <400> 9 Met Thr Ile Asn Tyr Gln Phe Gly Asp Val Asp Ala His Gly Ala Met 10 Ile Arg Ala Gln Ala Gly Leu Leu Glu Ala Glu His Gln Ala Ile Val 25 Arg Asp Val Leu Ala Ala Gly Asp Phe Trp Gly Gly Ala Gly Ser Val 40 Ala Cys Gln Glu Phe Ile Thr Gln Leu Gly Arg Asn Phe Gln Val Ile 5.5 Tyr Glu Gln Ala Asn Ala His Gly Gln Lys Val Gln Ala Ala Gly Asn 70 75 Asn Met Ala Gln Thr Asp Ser Ala Val Gly Ser Ser Trp Ala 8.5 90 <210> 10 <211> 285 <212> DNA <213> M Tuberculosis <220> <221> CDS <222> (1)...(282) <400> 10 atg acc atc aac tat cag ttc ggt gat gtc gac gct cat ggc gcc atg 48 Met Thr Ile Asn Tyr Gln Phe Gly Asp Val Asp Ala His Gly Ala Met atc cgc gct cag gcc ggg ttg ctg gag gcg gag cat cag gcc atc gtt 96 Ile Arg Ala Gln Ala Gly Leu Leu Glu Ala Glu His Gln Ala Ile Val 25 cgt gat gtg ttg gcc gcg ggt gac ttt tgg ggc ggc gcc ggt tcg gtg 144 Arg Asp Val Leu Ala Ala Gly Asp Phe Trp Gly Gly Ala Gly Ser Val 35 40 gct tgc cag gag ttc att acc cag ttg ggc cgt aac ttc cag gtg atc 192 Ala Cys Gln Glu Phe Ile Thr Gln Leu Gly Arg Asn Phe Gln Val Ile 55 tac gag cag gcc aac gcc cac ggg cag aag gtg cag gct gcc ggc aac 240 Tyr Glu Gln Ala Asn Ala His Gly Gln Lys Val Gln Ala Ala Gly Asn 65 70 75 aac atg gca caa acc gac agc gcc gtc ggc tcc agc tgg gcc 282 Asn Met Ala Gln Thr Asp Ser Ala Val Gly Ser Ser Trp Ala

85

tga 285

<210> 11 <211> 94 <212> PRT <213> M Tuberculosis <400> 11 Met Thr Ile Asn Tyr Gln Phe Gly Asp Val Asp Ala His Gly Ala Met 10 5 Ile Arg Ala Gln Ala Gly Leu Leu Glu Ala Glu His Gln Ala Ile Val 20 25 Arg Asp Val Leu Ala Ala Gly Asp Phe Trp Gly Gly Ala Gly Ser Val 40 Ala Cys Gln Glu Phe Ile Thr Gln Leu Gly Arg Asn Phe Gln Val Ile 55 Tyr Glu Gln Ala Asn Ala His Gly Gln Lys Val Gln Ala Ala Gly Asn 70 75 Asn Met Ala Gln Thr Asp Ser Ala Val Gly Ser Ser Trp Ala <210> 12 <211> 327 <212> DNA <213> M Tuberculosis <220> <221> CDS <222> (1)...(327) <400> 12 48 Val Leu Leu Pro Leu Gly Pro Pro Leu Pro Pro Asp Ala Val Ala 1 1.0 1.5 aaa cgg gct gag tcg gga atg ctc ggc ggg ttg tcg gtt ccg ctc agc Lys Arg Ala Glu Ser Gly Met Leu Gly Gly Leu Ser Val Pro Leu Ser 20 25 tgg gga gtg gct gtg cca ccc gat gat tat gac cac tgg gcg cct gcg 144 Trp Gly Val Ala Val Pro Pro Asp Asp Tyr Asp His Trp Ala Pro Ala 35 40 ccg gag gac ggc gcc gat gtc gat gtc cag gcg gcc gaa ggg gcg gac 192 Pro Glu Asp Gly Ala Asp Val Asp Val Gln Ala Ala Glu Gly Ala Asp 50 55 gca gag gcc gcg gcc atg gac gag tgg gat gag tgg cag gcg tgg aac 240 Ala Glu Ala Ala Met Asp Glu Trp Asp Glu Trp Gln Ala Trp Asn 65 70 75 gag tgg gtg gcg gag aac gct gaa ccc cgc ttt gag gtg cca cgg agt Glu Trp Val Ala Glu Asn Ala Glu Pro Arg Phe Glu Val Pro Arg Ser 85 90 95 327 age age age gtg att eeg eat tet eeg geg gee gge tag Ser Ser Ser Val Ile Pro His Ser Pro Ala Ala Gly *

100 105

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<210> 13
<211> 108
<212> PRT
<213> M Tuberculosis
<400> 13
Met Leu Leu Pro Leu Gly Pro Pro Leu Pro Pro Asp Ala Val Val Ala
                                   1.0
Lys Arg Ala Glu Ser Gly Met Leu Gly Gly Leu Ser Val Pro Leu Ser
                                25
Trp Gly Val Ala Val Pro Pro Asp Asp Tyr Asp His Trp Ala Pro Ala
                            40
Pro Glu Asp Gly Ala Asp Val Asp Val Gln Ala Ala Glu Gly Ala Asp
                        55
Ala Glu Ala Ala Met Asp Glu Trp Asp Glu Trp Gln Ala Trp Asn
                    70
                                       75
Glu Trp Val Ala Glu Asn Ala Glu Pro Arg Phe Glu Val Pro Arg Ser
                                   90
Ser Ser Ser Val Ile Pro His Ser Pro Ala Ala Gly
           100
                                105
<210> 14
<211> 324
<212> DNA
<213> M Tuberculosis
<220>
<221> CDS
<222> (1)...(324)
<400> 14
ttg acc cac aag cgc act aaa cgc cag cca gcc atc gcc gca ggg ctc
                                                                      48
Leu Thr His Lys Arg Thr Lys Arg Gln Pro Ala Ile Ala Ala Gly Leu
                                     10
aac gcc ccg cgt cgg aat cgc gtt ggg cgg caa cat ggt tgg ccg gcc
                                                                      96
Asn Ala Pro Arg Asn Arg Val Gly Arg Gln His Gly Trp Pro Ala
             20
                                 25
                                                                     144
gac gtt ccg tcc gcc gag cag cgc cgc gcc caa cgg cag cgc gac ctc
Asp Val Pro Ser Ala Glu Gln Arg Arg Ala Gln Arg Gln Arg Asp Leu
         35
gag gct atc cgc cga gcg tac gcc gag atg gtg gcg aca tca cac gaa
                                                                     192
Glu Ala Ile Arg Arg Ala Tyr Ala Glu Met Val Ala Thr Ser His Glu
     50
                         55
                                             60
atc gac gac aca gcc gaa ctg gcg ctg ttg tcg atg cat ctc gac
                                                                     240
Ile Asp Asp Asp Thr Ala Glu Leu Ala Leu Leu Ser Met His Leu Asp
65
                    70
                                         75
gat gag cag cgc cgg ctt gag gcg ggg atg aag ctc ggc tgg cat ccg
                                                                     288
Asp Glu Gln Arg Arg Leu Glu Ala Gly Met Lys Leu Gly Trp His Pro
```

90

95

85

tat cac ttc ccc gac gaa ccc gac agc aaa cag tga

Tyr His Phe Pro Asp Glu Pro Asp Ser Lys Gln *

100 105

<210> 15

<211> 107

<212> PRT

<213> M Tuberculosis

<400> 15

Met Thr His Lys Arg Thr Lys Arg Gln Pro Ala Ile Ala Ala Gly Leu

1 5 10 15

Asn Ala Pro Arg Asn Arg Val Gly Arg Gln His Gly Trp Pro Ala
20 25 30

Asp Val Pro Ser Ala Glu Gln Arg Arg Ala Gln Arg Gln Arg Asp Leu
35 40 45

Glu Ala Ile Arg Arg Ala Tyr Ala Glu Met Val Ala Thr Ser His Glu
50 55 60

Ile Asp Asp Asp Thr Ala Glu Leu Ala Leu Leu Ser Met His Leu Asp 65 70 75 80

Asp Glu Gln Arg Arg Leu Glu Ala Gly Met Lys Leu Gly Trp His Pro 85 90 95

Tyr His Phe Pro Asp Glu Pro Asp Ser Lys Gln
100 105

<210> 16

<211> 246

<212> DNA

<213> M Tuberculosis

<220>

<221> CDS

<222> (1)...(246)

<400> 16

atg age gge cac gcg ttg gct gct cgg acg ttg ctg gcc gcc gcg gac 48
Met Ser Gly His Ala Leu Ala Ala Arg Thr Leu Leu Ala Ala Asp
1 5 10 15

gag ctt gtc ggc ggc ccg cca gtc gag gct tcg gcc gcc gcg ctg gcc 96
Glu Leu Val Gly Gly Pro Pro Val Glu Ala Ser Ala Ala Ala Leu Ala
20 25 30

ggc gac gcc gcg ggc gca tgg cgg acc gcg gcc gtc gag ctt gcg cga 144
Gly Asp Ala Ala Gly Ala Trp Arg Thr Ala Ala Val Glu Leu Ala Arg
35 40 45

gcg ttg gtc cgc gct gtg gcg gag tcg cac ggc gtc gcg gcc gtt ttg 192
Ala Leu Val Arg Ala Val Ala Glu Ser His Gly Val Ala Ala Val Leu
50 55 60

ttc gcc gcg gcg gcc gcc gcg gcg gcc gtc gac cgg ggt gat ccg $\,$ 240 Phe Ala Ala Thr Ala Ala Al